

POLIOMYELITIS SURVEILLANCE REPORT

NO. 113

THIRD YEAR

JUNE 14, 1957

U.S. Department of Health, Education and Welfare
Public Health Service Bureau of State Services
Communicable Disease Center
Poliomyelitis Surveillance Unit
50 Seventh Street, N.E.
Atlanta, Georgia

SPECIAL NOTE

The information in this report represents a factual summary of preliminary data reported to the Poliomyelitis Surveillance Unit from State Health Departments, Epidemic Intelligence Service Officers, participating laboratories and other pertinent sources. It is understood that the contents of these reports will not be released to the press, except by the Office of the Surgeon General, Public Health Service, U. S. Department of Health, Education and Welfare. State Health Officers, of course, are free to release any information they may wish concerning data from their state.

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I. Current Poliomyelitis Morbidity Trends

During the week ending June 8, 1957, a total of 74 cases of poliomyelitis was reported to the National Office of Vital Statistics. This represents a slight increase in incidence over the 61 cases and 64 cases reported respectively for the preceding weeks ending May 25 and June 1. Figure 1 presents national poliomyelitis incidence by weeks since April, 1957, with similar weekly figures for April to July for the years 1952 through 1956.

Incidence by states and regions for the past six weeks is presented in Table 1, with six-week totals for the comparable periods of the previous four years. Increased polio incidence was reported from the South East and the South West regions. Incidence remained low and essentially unchanged in the North East, North West, and North Central regions. In the South Central region, incidence remained generally stable except for the State of Texas where reported cases decreased to 20, compared with 32 reported the preceding week.

II. Routine Poliomyelitis Surveillance

During the week ending June 12, 1957, the Polio Surveillance Unit received reports of two poliomyelitis cases occurring within 30 days of a polio vaccine inoculation. Both were nonparalytic cases reported from California and were associated with a single one million cc lot of vaccine that was distributed during April and May. No paralytic cases have been reported to PSU in association with this lot.

III. Vaccine Distribution

Table 2 presents a summary of current and cumulative shipments of vaccine (in 1000's of cc's of net bottled vaccine). Excluding export, 9 million cc's were shipped during May; the comparable totals for January, February, March, and April were 8, 16, 8 and 14 million cc's respectively.

The Vaccine Inventory on May 31, 1957, totaled 9 million cc's including vaccine unshipped by manufacturers and vaccine on hand in State and Local Health Departments, Physicians' Offices and in Commercial Channels.

IV. Poliomyelitis Surveillance Program for the 1957 Season

Plans have been completed for continuation of the Poliomyelitis Surveillance Program during 1957. Letters have been sent to State Polio Reporting Officers urging their continued support of the general surveillance program and inviting their participation in the Monthly Listing of All Poliomyelitis Cases (similar to the 1956 Age Distribution Analysis Program). Procedures recommended for the 1957 Surveillance Program are essentially unchanged from those employed during 1956 and are outlined in the following attachment (which was enclosed in the letters to the State Polio Reporting Officers). Also attached to this Report is a revision of the 1956 Age Distribution Analysis Form, now entitled "Monthly Listing of All Poliomyelitis Cases."

(This report was prepared by Dr. Alexander D. Langmuir and Dr. Lauri David Thrupp with assistance from the Statistics Section, CDC)

Department of Health, Education and Welfare
Public Health Service Bureau of State Services
Communicable Disease Center
Atlanta, Georgia
June 12, 1957

THE NATIONAL POLIOMYELITIS SURVEILLANCE PROGRAM FOR 1957

Outline of Procedures

Since the spring of 1955 all States and Territories have participated in the National Poliomyelitis Surveillance Program. The objectives have been the continued surveillance of vaccine safety, the evaluation of vaccine effectiveness, and the recording of current trends in the epidemiology of poliomyelitis and polio-like diseases.

In the continuation of the program in 1957 the following procedures, which incorporate only slight modifications of those used in 1956 are recommended:

1. Safety

Prompt submission of an individual case record form, including vaccine manufacturer and lot number, (PHS Form 400.112) is now requested only for paralytic cases vaccinated within 30 days of onset. Data concerning non-paralytic under-30-day vaccinated cases may be submitted later in the routine Monthly Listing of All Polio Cases (PHS Form 4.117, Revision of the 1956 Age Distribution Analysis Form), as indicated below. This change should lighten the load of individual case report forms. All polio reporting officers are urged to maintain constant awareness of any circumstances that might suggest a break in vaccine safety. Particular attention must still be directed to any vaccinated case with onset shortly following inoculation when the site of paralysis is correlated with site of inoculation.

2. Reactions

The significance of reported possible neurologic, allergic, and other reactions to polio vaccine has not been finally determined. PSU will therefore continue to compile and distribute data concerning vaccine reactions. It is urged that well documented case reports on all significant reactions and possible sequelae continue to be reported to PSU.

3. Effectiveness

As in 1956, current analyses of vaccine effectiveness must be based upon continued observation on a nationwide basis of trends of age and geographic distribution and of paralytic and vaccination status of poliomyelitis cases. Such data, compiled by 44 states, 3 territories, and the District of Columbia, in the 1956 Age Distribution Analysis, have revealed interesting epidemiologic trends and have suggested possible effects of vaccine on the epidemiology of poliomyelitis. Preliminary data for the 1956 Age Distribution Analysis have appeared in PSU Reports

Nos. 89, 94, 99, 102, and 109, and in "Surveillance of Poliomyelitis in the United States in 1956", Public Health Reports, Vol. 72, p. 381, May 1957. Further review of these data will soon be distributed as a PSU Report Supplement.

For the 1957 Program, the 1956 Age Distribution Analysis Form has been slightly revised and titled "Monthly Listing of All Poliomyelitis Cases". An item for "number of doses" of vaccine has been added. Since the doubly and triply-vaccinated populations in the nation are larger this year it will thus be advisable to document vaccinated polio cases by number of doses of vaccine.

Space is also provided in the revised form for recording vaccination data on under-30-day vaccinated cases. As outlined above, a prompt individual case report form is requested from now on only for paralytic cases; for non-paralytic under-30-day cases, data included on the Monthly Listing form will suffice.

It is hoped that all states will find it possible to continue their support of this aspect of the Polio Surveillance Program by participating in the Monthly Listing of All Polio Cases. Supplies of this revised form will be sent promptly upon request. Please submit listing of polio cases reported in 1957 through May 31st as soon as possible.

4. Triply-vaccinated Cases

PSU will continue to maintain a national registry of all reported triply-vaccinated polio cases. There is extensive interest in these cases in many circles and a central depository for verified data seems to be desirable. All State and Territories are urged to investigate each reported instance of polio in a triply-vaccinated person. Laboratory investigation by virus isolation and serological studies are important in confirming the diagnosis as poliomyelitis or determining the presence of non-polio infection. A 60-day muscle evaluation by a qualified physical therapist is also most desirable in the final evaluation of these cases. Periodic summaries of data on triply-vaccinated cases will be recorded in PSU Reports.

5. Special Studies

PSU Reports will continue to record current information of special interest to public health workers concerning any significant aspect of the polio situation. Particular attention should be directed toward the prompt field and laboratory investigation of all outbreaks of paralytic polio or of "non-paralytic polio" or polio-like diseases. It has become increasingly apparent that some cases of paralytic disease simulate polio but have other causes. These warrant further documentation.

Epidemic Intelligence Service Officers will continue to be assigned with first priority duty being the surveillance of poliomyelitis.

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Epidemic Intelligence Service Officers will continue to be assigned with first priority duty being the surveillance of poliomyelitis.

INSTRUCTIONS:

1. **Monthly Listings of All Poliomyelitis Cases** are requested to be submitted by the 15th of each month, including information on all cases of poliomyelitis reported to the state during the previous month. Cases should be listed as soon as they have been accepted by the state and their paralytic status and vaccination history determined.

2. Monthly Listing sheets should be numbered consecutively beginning with "1" each month. Listings should be completed in duplicate and the original copy mailed to the Poliomyelitis Surveillance Unit, Communicable Disease Center, 50 Seventh Street, N. E., Atlanta 23, Georgia. The carbon copy should be retained by the state for reference.

3. **Date of First Symptoms:** If date of first symptoms is not known, date of hospitalization or date of report may be substituted.

4. **Paralytic Status:** If case is known to be definitely paralytic, mark an "X" in Column "P" (paralytic); if case is known to be definitely nonparalytic, mark an "X" in Column "NP" (nonparalytic); if paralytic status is not definitely known, mark an "X" in Column "U" (unspecified). (If paralytic status is subsequently determined or revised, it should be reported as a "Revision" at such time - see No. 6 below.)

5. **Vaccination History:** If case was known to have received polio vaccine at some time prior to onset of polio, mark an "X" in Column "V" (vaccinated); if case was definitely known not to have been vaccinated prior to onset, mark an "X" in Column "NV" (not vaccinated); if vaccination history has not been definitely determined, mark an "X" in Column "U" (unknown). For vaccinated cases indicate the number of doses of vaccine given prior to date of first symptoms. If exact number of doses is not known leave column blank.

6. For all cases with onset of symptoms within 30 days following last polio vaccination, indicate the date of last inoculation, the Manufacturer and Lot Number of vaccine used, the site of the inoculation and the site of first paralysis (if any). Indicate site of inoculation and site of first paralysis as follows:

left arm	-	LA	bulbar	-	B
right arm	-	RA	trunk	-	T
left leg	-	LL	or combinations of the above for multiple		
right leg	-	RL	sites of first paralysis.		

7. Revisions of previously listed cases should be listed completely in their revised form, with the month, sheet number, and line number of the original listing indicated in the columns provided on the right. Revisions of paralytic status or of vaccination history are of particular importance. If a case has been dropped, indicate the revised diagnosis under "remarks".

8. An IBM Listing may be substituted for this report if it includes all the essential items in the prescribed order together with the necessary codes.

Use this space for additional remarks:

Fig. 1

CURRENT U.S. POLIO INCIDENCE COMPARED WITH YEARS 1952-1956

DATA PROVIDED BY NATIONAL OFFICE OF VITAL STATISTICS

NUMBER OF REPORTED CASES

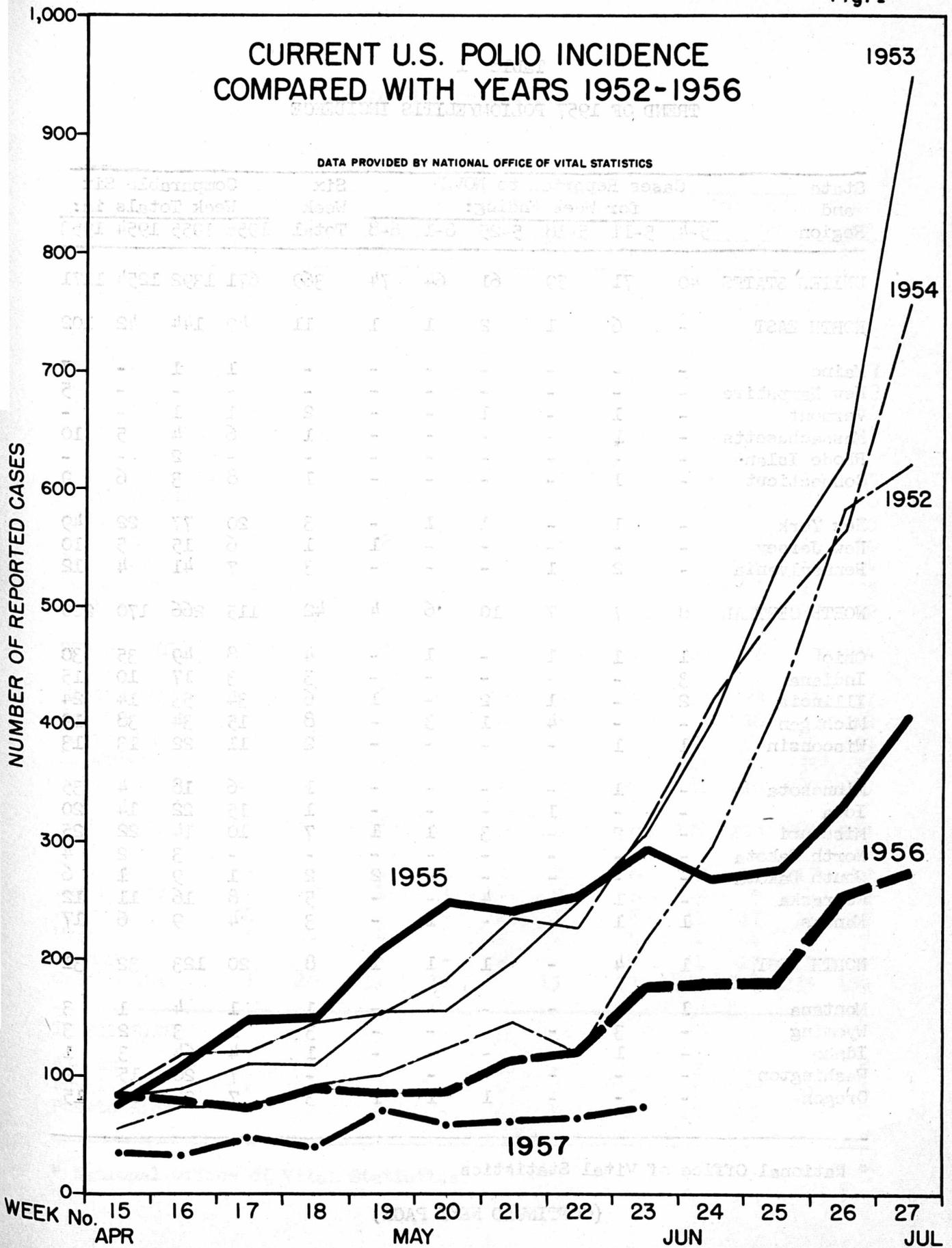


Table 1

TREND OF 1957 POLIOMYELITIS INCIDENCE

State and Region	Cases Reported to NOVS* for Week Ending:						Six Week Total	Comparable Six Week Totals in:			
	5-4	5-11	5-18	5-25	6-1	6-8		1956	1955	1954	1953
UNITED STATES	40	71	59	61	64	74	369	671	1392	1254	1171
NORTH EAST	-	6	1	2	1	1	11	49	144	42	102
Maine	-	-	-	-	-	-	-	1	1	-	7
New Hampshire	-	-	-	-	-	-	-	-	-	-	5
Vermont	-	1	-	1	-	-	2	1	1	-	-
Massachusetts	-	1	-	-	-	-	1	6	4	5	10
Rhode Island	-	-	-	-	-	-	-	-	2	-	-
Connecticut	-	1	-	-	-	-	1	8	3	6	9
New York	-	1	-	1	1	-	3	20	77	22	49
New Jersey	-	-	-	-	-	1	1	6	15	5	10
Pennsylvania	-	2	1	-	-	-	3	7	41	4	12
NORTH CENTRAL	8	7	7	10	6	4	42	115	266	170	220
Ohio	1	1	1	-	1	-	4	8	49	35	30
Indiana	3	-	-	-	-	-	3	3	17	10	15
Illinois	2	-	1	2	-	1	6	34	53	14	24
Michigan	-	-	4	1	3	-	8	15	34	38	19
Wisconsin	1	1	-	-	-	-	2	11	22	13	13
Minnesota	-	1	-	-	-	-	1	6	18	4	35
Iowa	-	-	1	-	-	-	1	15	22	14	20
Missouri	-	2	-	3	1	1	7	10	14	22	25
North Dakota	-	-	-	-	-	-	-	-	3	2	4
South Dakota	-	-	-	-	-	2	2	1	9	1	6
Nebraska	-	1	-	4	-	-	5	8	16	11	12
Kansas	1	1	-	-	1	-	3	4	9	6	17
NORTH WEST	1	4	-	1	1	1	8	20	123	32	31
Montana	1	-	-	-	-	-	1	1	4	1	3
Wyoming	-	3	-	-	-	-	3	1	3	2	3
Idaho	-	1	-	-	-	-	1	4	64	3	1
Washington	-	-	-	-	-	-	-	7	26	15	9
Oregon	-	-	-	1	1	1	3	7	26	11	15

* National Office of Vital Statistics

(CONTINUED NEXT PAGE)

Table 1 (Continued)

State and Region	Cases Reported to NOVS* (for Week Ending:)						Six Week Total	Comparable Six Week Totals in:			
	5-4	5-11	5-18	5-25	6-1	6-8		1956	1955	1954	1953
SOUTH EAST	3	7	5	10	5	16	46	81	243	289	260
Delaware	-	-	-	-	-	-	-	2	14	1	-
Maryland	-	-	-	-	-	-	-	3	17	4	7
D. C.	-	-	-	-	-	-	-	-	3	1	3
Virginia	-	1	-	1	2	1	5	7	20	10	14
West Virginia	-	-	-	-	-	1	1	4	14	14	17
North Carolina	1	-	1	3	-	2	7	8	16	12	35
South Carolina	-	-	-	2	2	3	7	6	12	22	10
Georgia	-	-	1	1	-	-	2	2	37	49	25
Florida	1	5	2	1	-	6	15	32	51	115	40
Kentucky	-	1	-	-	1	-	2	5	27	13	14
Tennessee	1	-	1	-	-	1	3	8	11	11	23
Alabama	-	-	-	2	-	2	4	4	21	37	72
SOUTH CENTRAL	17	26	30	19	42	32	166	228	326	439	354
Mississippi	-	2	1	-	3	3	9	11	33	35	37
Arkansas	-	1	5	-	2	-	8	4	18	33	22
Louisiana	2	8	1	1	4	5	21	41	52	47	34
Oklahoma	-	-	-	-	1	4	5	11	13	35	32
Texas	15	15	23	18	32	20	123	161	210	289	229
SOUTH WEST	11	21	16	19	9	20	96	178	290	282	204
Colorado	-	-	1	2	1	2	6	2	27	12	12
New Mexico	-	2	1	1	-	2	6	5	7	4	2
Arizona	2	1	-	-	2	1	6	11	17	17	14
Utah	1	-	-	4	-	-	5	-	4	7	7
Nevada	-	-	-	-	-	-	-	1	17	7	-
California	8	18	14	12	6	15	73	159	218	235	169
TERRITORIES											
Alaska	-	-	-	-	-	-	-	2	2	4	5
Hawaii	-	-	-	-	-	-	-	5	10	30	6
Puerto Rico	-	-	-	-	-	1	1	10	43	-	2

* National Office of Vital Statistics.

Table 2

Poliomyelitis Vaccine Shipment Summary

(Reports from Polio Vaccine Activity, BSS, USPHS, through 6-7-57)

<u>Vaccine Shipments (in 1000's of cc's)</u>						
<u>Period</u>	<u>NFIP**** Sponsored Clinics</u>	<u>Public Agencies</u>	<u>Commercial Channels</u>	<u>Export *****</u>	<u>Total*</u>	
1955	13,541	7,893	6,233***	-	27,667	
1956	194	45,588	24,784	6,477	77,043	
1957						
January	2	4,075	4,243	2,111	11,061	
February	3	9,934	6,100	544	16,581	
March	3	5,297	3,140	1,456	9,896	
April	-	8,639	5,161	1,360	15,161	
May 1-17	**	3,054	1,687	513	5,254	
May 18-31	73	2,310	2,080	23	4,486	
Cumulative Totals	13,816	87,421	53,427	12,485	167,149	

Vaccine Inventory (in 1000's of cc's)
Week Ending 5/31/57

Vaccine Cleared for distribution by the National Institutes of Health but not shipped	2,986
Vaccine in State and Local Health Departments	3,672
Vaccine in Commercial Channels and Physicians Offices	2,584

* Totals do not add because figures are rounded to nearest 1000 cc's.

** Less than 1000 cc's.

*** Includes 562,740 cc's shipped through commercial channels prior to inauguration of the Interstate Distribution Program in August, 1955.

**** Vaccine purchased by the National Foundation for Infantile Paralysis and distributed for inoculation of first and second grade children in locally organized school clinics.

***** Regulated under Department of Commerce Export Policy.